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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/667,732	09/22/2000	Naoki Tsumura	2271/62515	9975

7590

06/24/2003

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EXAMINER

CHANG, ERIC

ART UNIT

PAPER NUMBER

2185

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/667,732

Applicant(s)

TSUMURA, NAOKI

Examiner

Eric Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Claims 1-15 are pending.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because of undue length. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-8, 10-12 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,656,318 to Noyes.

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6. As to claim 1, Noyes discloses a communication apparatus connected to an analog communication network, the apparatus comprising:

[a] a line interface circuit for connecting to the analog network [FIG. 1, element 16, and col. 3, lines 36-40];

[b] a digital signal processing circuit coupled to the line interface circuit for modulating and demodulating signals [FIG. 1, elements 13-14, and col. 3, lines 40-53];

[c] a digital interface circuit between the line interface circuit and the digital signal processing circuit that electrically isolates signals between the two circuits [FIG. 2, elements 22-24, and col. 4, lines 6-10]; and

[d] a power-saving control device to suspend operation of the communication apparatus during a power-saving state, and resume operation of the apparatus when an incoming call signal is received by the network control signal during the power-saving state [FIG. 1, element 15&19, and col. 2, lines 10-21].

7. As to claims 3-5, Noyes discloses the various sections of the communications apparatus, such as the network control section are connected by lines that are used to transmit the proper control signals when the apparatus is placed into a power-saving state, or when it is being placed return-to-normal state, substantially as claimed [FIG. 1, and col. 3, lines 57]. It is well known to one of ordinary skill in the art that such lines may comprise dedicated lines, common signal lines, or serial communications lines, substantially as claimed.

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8. As to claim 6, Noyes discloses a communication apparatus comprising circuits for performing the tasks, including interfacing with the network, modulating/demodulating signals, isolating components, and providing power-saving control, substantially as claimed. Because Noyes teaches the apparatus comprising circuits for performing these tasks, Noyes also teaches the apparatus comprising means for performing these tasks.

9. As to claim 7, Noyes discloses a communication apparatus comprising circuits for performing the tasks, including interfacing with the network, modulating/demodulating signals, isolating components, and providing power-saving control, substantially as claimed. Because Noyes teaches the apparatus comprising circuits for performing these tasks, Noyes also teaches the method comprising the steps of performing these tasks, wherein the apparatus resumes normal operation of modulating/demodulating signals for use on the analog network when it receives an incoming call while in a power-saving mode. Furthermore, Noyes teaches that the host computer for the apparatus may further comprise a “sleep” mode, and it is well known in the art that sleep modes for computers and their related apparatuses may be entered when they have been idle for a pre-determined period of time, substantially as claimed [col. 7, lines 46-50].

10. As to claim 8, Noyes discloses a method of controlling a communication terminal comprising:

[a] a modem for communicating with an analog network system [FIG. 1, elements 13-14, and col. 3, lines 40-53];

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[b] selectively providing a first control signal to place the apparatus in a low-power state to save power [col. 5, lines 8-11, and col. 7, lines 27-34];

[c] selectively providing a second control signal to place the apparatus in an active state for communicating on the network [col. 5, lines 8-11, and col. 7, lines 51-64]; and

[d] thereby saving power while retaining the ability to return to an active state [col. 2, lines 10-21];

11. As to claims 10 and 14, Noyes discloses suspending the apparatus by reducing an amount of power supplied to the modem subsystem [col. xx, lines xx].

12. As to claims 11 and 15, Noyes discloses the power-saving state of the apparatus is further controlled by a CPU [col. 3, lines 58-68, and col. 5, lines 8-11].

13. As to claim 12, Noyes discloses a method comprising steps for performing the tasks, including providing a modem subsystem, and selectively providing signals to place the apparatus into a lower-power state to save power and subsequently returning the apparatus from said state, substantially as claimed. Because Noyes teaches the method, Noyes also teaches the apparatus for performing these tasks.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 2, 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent 4,656,318 to Noyes in view of U.S. Patent 6,445,733 to Zuranski et al.

16. As to claims 2, 9 and 13, Noyes discloses a modem, comprising electrical isolation of network signals, that provides for a low-power state from which the apparatus can be returned to the active state, substantially as claimed.

Noyes teaches all of the limitations of the claims but does not teach that a clock control device configured to halt the clock signal to the modem during the power-saving state and providing the clock during the normal operating state.

Zuranski teaches that a modem that implements a low-power state can be placed into said low-power state by reducing or stopping clock signals within the modem [col. 7, lines 14-26].

At the time that the invention was made, it would have been obvious to a person of ordinary skill in the art to place the modem in a low-power state by reducing the clock signal as taught by Zuranski. One of ordinary skill in the art would have been motivated to do so that the processing elements of the modem consume less power than in active mode.

It would have been obvious to one of ordinary skill in the art to combine the teachings of the cited references because they are both directed to the problem of implementing a low-power state in a modem apparatus. Moreover, the clock rate reduction means taught by Zuranski would improve the flexibility of Noyes because it allowed the modem power consumption to be

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reduced by means other than simply reducing the power to the components. The means taught by Zuranski would also allow for partial speed and thermal throttling of the modem processors, if so desired.


Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Chang whose telephone number is (703) 305-4612. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (703) 305-9717. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

ec
June 16, 2003


THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100